Narada®

stored energy solutions for a demanding world

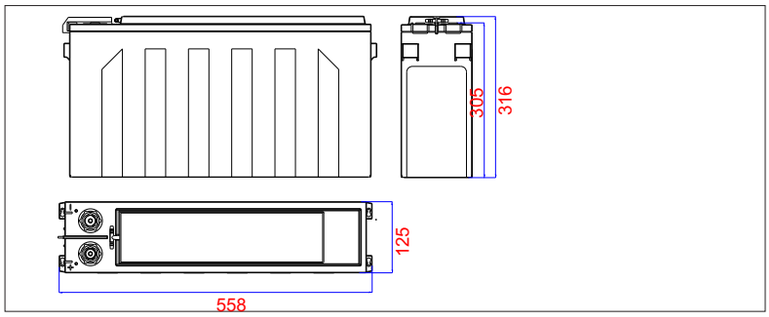
12HTB190F

313K 12V Series

High Temperature Batteries

Narada's HTB-F series battery special designed for high temperature floating application , idea for telecom service where the temperature is higher. With CCPP thin plate technique, innovative structure design, high quality manufacturing and high quality high-temperature-resistant material, HTB-F batteries have 10 years design life at 35℃. HTB-F series also meet the standard <YD/T2657-2013 High temperature valve-regulated lead acid batteries for telecommunications>.

Dimensions-mm



Specifications

Battery Model	12HTB190F
Nominal Voltage	12V
Rated Capacity	190Ah (10 hour rate) to 1.80V/cell @25°C(77°F)
Typical Weight	Approx 59 kg
Internal Resistance	Approx 4.28mΩ
Temperature Ranges	Operation (maximum): -40°C to 65°C(-40°F to 149°F) Operation (recommended): 15°C to 35°C(59°F to 95°F) Storage: -20°C to 40°C(-4°F to 104°F)
Float Voltage	2.25V/cell@25°C(77°F)
Recommended Maximum Charging Current Limit	47.5 A
Equalize and Cycle Service	2.35V/cell@25°C(77°F)
Self Discharge	The residual capacity is above 96% after 28 days storage(35°C/95°F)
Terminal	M6 Female
Terminal Hardware Torque	8~10Nm
Container Material	PPO

Constant Current Discharge Characteristics Units: Amperes (35°C, 95°F)

End voltage per cell	5MIN	15MIN	30MIN	45MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	12HR	20HR	24HR
1.60V	529	323	212	161	131	76.5	54.9	43.1	35.6	30.4	23.7	21.2	18.1	12.8	11.0
1.67V	489	313	209	159	130	75.9	54.4	42.7	35.3	30.2	23.6	21.1	18.1	12.6	10.8
1.70V	472	306	206	157	129	75.7	54.4	42.7	35.3	30.1	23.5	20.9	17.7	12.4	10.6
1.75V	431	277	194	152	126	75.5	54.3	42.6	35.2	30.0	23.3	20.3	16.8	10.7	8.67
1.80V	357	250	183	147	123	75.4	54.2	42.4	35.1	29.8	22.6	19.4	16.6	10.4	8.70
1.83V	333	237	174	142	119	75.2	53.9	42.2	34.9	29.6	22.1	19.0	16.3	10.1	8.43
1.85V	316	223	165	135	114	72.1	52.9	41.7	34.3	29.0	21.8	18.9	15.6	9.29	7.64

Discharge Data with Constant Power Units: Watts per cell (35°C, 95°F)

End voltage per cell	5MIN	15MIN	30MIN	45MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	12HR	20HR	24HR
1.60V	914	601	407	313	256	152.0	109.1	86.2	72.2	61.2	47.8	42.9	36.7	23.8	20.4
1.67V	860	576	396	307	252	151.0	109.1	86.2	72.1	61.1	47.6	42.6	36.3	23.1	19.7
1.70V	831	560	389	303	250	151.0	109.1	86.1	72.0	61.0	47.6	42.4	36.0	22.5	19.1
1.75V	768	520	369	293	244	149.9	109.1	85.9	71.8	60.9	47.3	41.7	35.0	21.0	17.3
1.80V	648	464	346	282	240	149.9	109.1	85.8	71.6	60.7	46.3	40.0	32.8	19.2	16.4
1.83V	609	443	334	272	233	148.9	108.1	85.6	71.5	60.5	45.7	39.4	32.3	17.9	15.2
1.85V	581	423	320	262	224	144.8	107.1	85.0	70.1	59.5	45.1	39.1	32.2	16.7	14.3

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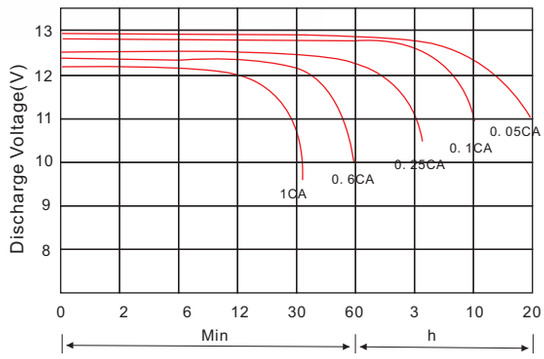
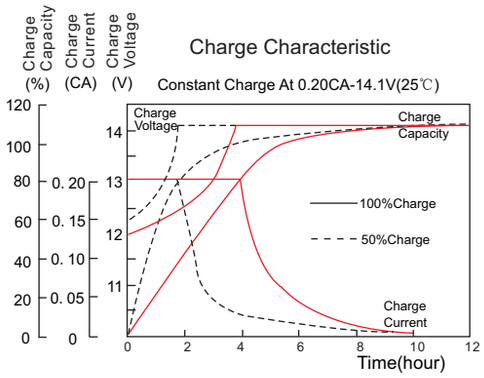
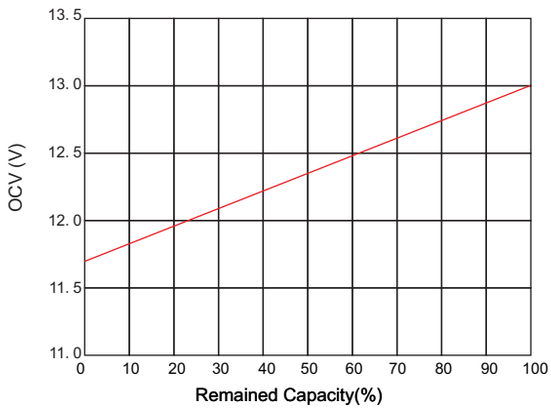
Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



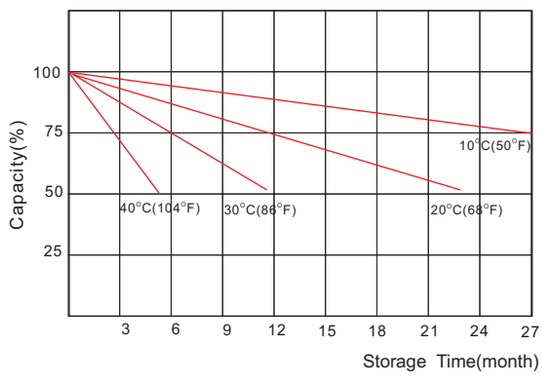
Battery Voltage Vs. Charge Time



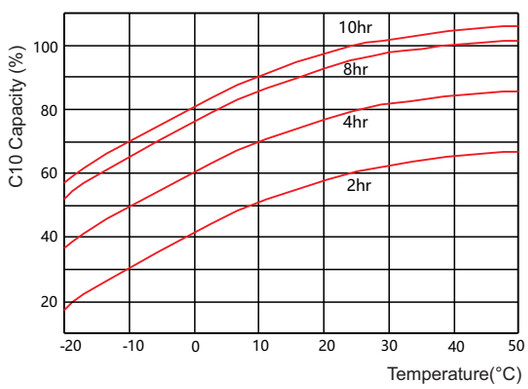
Relationship of OCV Vs. State of Charge



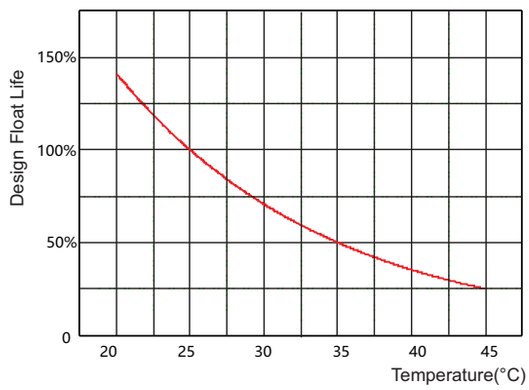
Capacity Retention Characteristic



Capacity vs temperature curve



Float life vs temperature curve



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